DOCUMENT RESUME

ED 336 850 EA 023 329

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TITLE Analysis of Selected Competencies: Components, Acquisition and Measurement Perceptions of Three Groups of Stakeholders in Education.
PUB DATE 91
NOTE 24p.; Paper presented at the Annual Meeting of the National Council of Professors of Educational Administration (Fargo, ND, August 1991).
PUB TYPE Reports - Research/Technical (143) -- Speeches/Conference Papers (150)

EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS *Administrator Attitudes; Administrator Education; *Administrator Effectiveness; *Administrator Qualifications; *Competence; Discriminant Analysis; *Educational Administration; Elementary Secondary Education; Evaluation Criteria; Higher Education; Leadership; Leadership Styles

ABSTRACT

Findings from a study that identified the value of 13 competencies in terms of certification and employment standards for educational administrators are presented in this paper. A survey mailed to 11 large-city school superintendents, 22 state departments of education, and 43 administrator preparation programs produced response rates of 69, 100, and 93 percent, respectively. The survey instrument utilized a Likert-type scale to rank 13 competency variables. Findings indicate that a significant level of agreement existed among respondents about the elements of competency necessary for an effective superintendency. Communication skills was perceived as the most important variable. However, superintendents and administrator preparation faculty held different perceptions of competency development and measurement, which illustrates the need for collaboration between universities and school corporations in administrator preparation, certification, and employment. Four tables and the competency measurement instrument are included. (23 references) (LMI)

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Analysis of Selected Competencies: Components, Acquisition and Measurement Perceptions of Three Groups of Stakeholders in Education.

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Paper presented at the 1991 NCPEA Annual conference, held at the North Dakota State University, Fargo, North Dakota.

EA 023 329

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A series of four national surveys of certification and employment standards for educational administrators conducted over the past six years Gousha et al (1985), Gousha (1986); Gousha et al. (1989), Lopresti et al. (1990) revealed a continuing pattern of change and experimentation as state educational agencies, large city school districts and major universities seek the most effective methods for preparing administrators for their educational roles.

In each survey data was collected about several factors related to certification, employment standards and preparation standards. The respondents were asked about required competencies, the use of examinations, the use of performance assessments, required field experiences, required classroom teaching experience and continuing education requirements.

The third survey, in addition to collecting the above mentioned data, surveyed large city superintendents, state departments of education and administration programs in universities, by means of a questionnaire, to ascertain their perceptions of the components of, competency, how competency is best acquired or developed and how competency is best measured for the preparation of educational administrators.

This study identifies and compares the value of thirteen competencies within the framework of one working definition of competency. Furthermore the study compares the relative perceptions of the three major stakeholders with regard to the most effective ways of acquiring these competencies and how best to measure them.

Methodology:

Data were collected from large city school superintendents, state departments of public instructions and educational administration preparation programs by means of a survey questionnaire. The population was the same as that used by Gousha et al (1989). The survey was mailed to the entire population of the study mentioned above and the response rate is as follows: Superintendents, 69 percent; state departments, 100 percent and the administration preparation programs 93 percent. The diminished rate of return was contingent upon the availability of standards/regulations concerning competency in the schools and the state departments of education.

Competency was defined as "a certain knowledge base with the skills to perform at an effective and requisite level (Short 1985). Overall 13 variables relating to competencies were generated on the basis of previous surveys and from the literature. Respondents were asked to indicate their belief on the importance of these 13 competency variables. The importance of each variable was measured using a Likert-type scale from 1 to 5, with 1 indicating very important and 5 indicating not important at all. Additional space was provided for the respondents for two more aspects of competency they believed to be important. The respondents were also asked to rank the various components of competency in order of importance with 1 indicating the most important, 2 the next most important and so on.

The acquisition or development of the competency section asked respondents to indicate which of three methods -- work experience, course work or clinical preparation -- was the best way to gain competency.

Space was provided so respondents could express additional methods they believed existed. The section on the measurement of competency followed a similar format, with respondents choosing a best method for measuring or demonstrating competency --- standardized testing, course grades, peer review or interview process. In each section the different competencies were presented in identical order to ensure consistency among variables across sections.

RESULTS

Competency Components

Frequency tables were run on the different sections of data. The tables indicated that a small minority of respondents utilized the open-response opportunities to include additional aspects of competency, methods of developing competency, or ways to measure competency; therefore, statistical analyses was limited to the thirteen competency components presented by the authors. Furthermore only 45% of the respondents ranked the aspects of competency; this form of measurement was also eliminated from inclusion in statistical analyses, but its frequency results are reported later.

Table 1 presents respondents' belief of the importance of each aspect of competency. The separate groups' and combined groups' means are presented, as well as the relative positions of each variable mean to other means within each group. All three groups indicated that Communication skills was the most important aspect of competency. The groups were also in agreement as to the three next most important

variables -- Critical thinking skills, Clarity of values, and Empathy, understanding, and respect for others. Furthermore, all groups indicated the same two variables as least important of the thirteen aspects of competency -- Sense of self, and Loyalty and intimacy that go beyond understanding and tolerance. It should be interesting to note, however, that no aspect of competency received a mean score below 3.00, "important" on the scale by any group.

Frequencies of the respondences rankings (Table 2) produced similar results. The top three aspects ranked by each group were, in descending order, Clarity of values, Communication skills, and Critical thinking skills. Again, Sense of self, and Loyalty and Intimacy that go beyond understanding and tolerance were the least important aspects ranked. The frequencies reported present a consistent believe of competency among superintendents, state departments, and preparation programs.

Discriminated analysis was conducted on the competency components, and produced no variables of statistical significance which discriminated one group from the others. One-way Analysis of Variance were also performed on each variable using all three groups, and then only two groups at a time to discover any significant differences between groups on the aspect variables. No statistical differences were found. The consistent absence of significant differences, along with the frequencies on importance and ranking of competency components, presents a clear picture of remarkably close agreement between the three groups concerning what aspects of competency are important.

Acquisition of Competency

Table 3 presents the variable modes of each group. indicating the best means for acquiring or developing specific competency components. Superintendents expressed the belief that work experience is the best means of gaining competency in 9 out of 13 components, while university preparation program respondents viewed course work as the best method in 10 of the 13 components. State department officials said work experience was the best method of 5 components and course work for 6 components; this put the state department officials in agreement with superintendents, at least according to variable mode, on 7 variables and in agreement with preparation program faculty on 9 variables. However, superintendents and faculty identified different methods on 7 variables, and all three groups identified completely different methods on each of three variables.

A discriminant analysis (Table 4) of the acquisition data generated 9 variables that helped discriminate respondents into the three groups. Of particular importance is the fact that the four most important components of competency, as agreed upon by all three groups, are present as discriminating variables. The groups are significantly different (.002) on how best to develop the most important aspects of competency.

One-way Analysis of Variance was conducted for each variable to test for differences between all three groups and between two groups at a time. Statistically significant differences were found between all three groups on Clarity of Values ($p=<.05$), Technical skills ($p=<0.5$), and Creative ability ($p=<.05$), Cultural sophistication ($p=<.05$), Understanding of relevant issues ($p=<.05$, and Technical skills (p,.01), and creative ability ($p=<.05$). State department officials were significantly different from faculty only on Creative ability ($p=<.01$).

Measurement of Competency

The best method for measuring aspects of competency is presented in Table 5 for each group. Variable mode is used to indicate best method. Superintendents never indicated course grades as the best way to measure any aspect of competency. Superintendents identified peer review 5 times, standardized testing 5 times and interview process 3 times. The combined number of times peer review and interview process is identified appears to show that superintendents believe that they themselves are the best determiners of competency. Preparation program faculty, on the other hand, identify course work as the best method of measurement for 6 of the competency components, 5 of which are the 5 variables where superintendents identified standardized testing as the best means of measurement. Faculty, too, seem to view themselves as the best judges of competency.

Discriminated analysis (Table 6) of the measurement data generated 7 variables that help discriminate between the three groups including 2 of the 4 most important variables identified by all the groups. One-way Analysis of Variance on all variables of the measurement data produced only two variables of statistical significance between groups. Superintendents and preparation program faculty were significantly different on Communication skills ($p=<.05$) and Understanding of relevant issues ($p=<.05$).

CONCLUSION

Clearly professionals in educational administration have a common

understanding of the elements of competency needed to be an effective superintendent. The respondents demonstrated significant agreements about the value of various specific competencies. Communication skills were most frequently listed as extremely important and such areas as critical thinking, clarity of values; and understanding of and respect for others also ranked high. None of the 13 competency areas on the list received mean scores below "important" which was the midpoint on the Likert Scale.

However different work environments, socializing forces, and/or political conditions work to develop quite different perceptions of how to develop those aspects of competencies and how to measure those aspects. Such a division of opinion about how best to acquire or develop and best measure competency for the educational administrator was of no great surprise since contention between academic preparation and practice aspects of professional preparation of educational personnel has existed for a number of years.

The study did confirm the need to seek and establish more effective collaboration in the preparation, certification and employment arena between universities and school corporations - a need increasingly recognized in the literature of the field.

TABLE 1. COMPONENTS OF COMPETENCY

Variables	All Groups (N = 76)		Superintendents (N = 11)		State Departments (N = 11)		Preparation Programs (N = 43)	
Clarity of values and integrity	1.49	3	1.55	4	1.43	2	1.51	3
Communication skills	1.31	1	1.46	1	1.19	1	1.33	1
Critical thinking skills, analysis, synthesis, evaluation	1.43	2	1.46	1	1.52	3	1.37	2
Ability to learn from experience	1.88	5	2.09	9	1.91	6	1.81	5
Cultural sophistication and cross-cultural understanding	2.09	11	2.00	7	2.29	11	2.02	7
Empathy, understanding, and respect for others	1.61	4	1.46	1	1.86	5	1.52	4
Loyalty and intimacy that go beyond understanding and tolerance	2.72	13	2.70	12	3.00	13	2.60	13
Sense of self in a social and historical sense	2.30	12	2.82	13	2.30	12	2.33	12
Understanding of relevant critical and political issues	1.96	7	2.09	9	2.05	10	1.88	6
Technical skills related to personnel and organizational management	2.03	10	2.00	7	1.91	6	2.09	11
Creative ability to incorporate new research an information from various fields	2.01	9	2.09	9	1.95	8	2.02	7
Foundational knowledge base	1.96	6	1.73	5	1.85	4	2.02	7
Specific knowledge base	1.99	8	1.82	6	1.95	8	2.05	10

TABLE 2. COMPONENTS OF COMPETENCY

Variables	All Groups (N = 76)		Superintendents (N = 11)		State Departments (N = 22)		Preparation Programs (N = 43)	
Clarity of values and integrity	2.79	1	1.67	1	3.00	2	3.00	1
Communication skills	2.85	2	2.17	2	2.55	1	3.17	2
Critical thinking skills, analysis, synthesis, evaluation	3.95	4	5.20	3	3.64	3	3.83	3
Ability to learn from experience	7.39	6	7.60	8	7.27	7	7.40	7
Cultural sophistication and cross-cultural understanding	8.06	8	6.60	5	9.09	11	7.85	8
Empathy, understanding, and respect for others	5.41	5	6.67	6	6.46	4	4.55	4
Loyalty and intimacy that go beyond understanding and tolerance	10.33	13	9.40	12	11.30	13	10.06	13
Sense of self in a social and historical sense	9.47	12	8.75	11	10.73	12	8.90	11
Understanding of relevant critical and political issues	8.77	11	11.60	13	8.50	10	8.20	9
Technical skills relatd to personnel and organizational management	7.57	7	7.40	7	8.18	8	7.29	6
Creative ability to incorporate new research and information from various fields	8.32	9	8.60	10	7.09	6	9.00	12
Foundational knowledge base	3.94	3	6.19	4	6.91	5	7.21	5
Specific knowledge base	8.38	10	7.67	9	8.20	9	8.72	10

TABLE 3. BEST MEANS OF ACQIUSITION/DEVELOPMENT OF COMPETENCY COMPONENTS

Variables	Superintendents (N = 11)	State Departments (N = 22)	Preparation Programs (N = 43)
Clarity of values and integrity	Work	Other	Courses
Communication skills	Work	Courses	Courses
Critical thinking skills, analysis, synthesis, evaluation	Work	Courses	Courses
Ability to learn from experience	Work	Work	Work
Cultural sophistication and cross-cultural understanding	Work	Work	Courses
Empathy, understanding, and respect for others	Work	Work	Work
Loyalty and intimacy that go beyond understanding and tolerance	Work	Work	Work
Sense of self in a social and historical sense	Prep	Work	Courses
Understanding of relevant critical and political issues	Courses	Courses	Courses
Technical skills related to personnel and organizational management	Work	Courses	Courses
Creative ability to incorporate new research and information from various fields	Work	Prep	Courses
Foundational knowledge base	Courses	Courses	Courses
Specific knowledge base	Courses	Courses	Courses

*Variable Modes are reported.

TABLE 4. DISCRIMINANT ANALYSIS OF ACQUISITION/DEVELOPMENT OF COMPETENCY

Discriminating Variables	Superintendents (N = 7) X	SD	State Departments (N = 14) X	SD	Preparation Programs (N = 33) X	SD	Unstandardized Discriminant Function Coefficient	Standardized Discriminant Function Coefficient
Empathy for others	1.71	1.25	1.57	1.16	2.27	1.23	.610	.741
Critical thinking skills	1.29	.49	1.86	.66	2.06	.43	1.229	.620
Understanding of relevant issues	1.71	.49	1.86	.77	2.09	.63	.785	.514
Cultural sophistication	1.43	.79	1.86	.77	2.18	.92	.461	.400
Communication skills	2.00	1.00	2.07	.92	2.09	.68	.266	.210
Technical skills	1.71	.76	2.36	.63	2.06	.75	--.301	-.217
Clarity of values	1.71	1.25	2.71	1.14	2.24	1.09	--.290	-.326
Sense of self	2.29	1.11	2.21	1.19	2.18	.92	--.409	-.415
Creative ability	1.86	.90	2.50	.94	2.03	.53	--.686	-.483
Group Centroids								
Superintendents							-1.007	
State Departments							- .958	
Preparation Programs							.620	

Classification Analysis	Predicted Group Membership		
Superintendents	63.6%	9.1%	27.3%
State Departments	9.1%	54.5%	36.4%
Preparation Programs	4.7%	20.9%	74.4%

67.11% if cases correctly classified

Discriminant Analysis Function	Eigenvalue	Correlation	Wilks Lambda	X^2	D.F.	Significa
	.640	.625	.421	40.618	18	.002

TABLE 5. BEST METHOD OF MEASUREMENT OF COMPETENCY COMPONENTS*

Variables	Superintendents (N = 11)	State Departments (N = 22)	Preparation Programs (N = 43)
Clarity of values and integrity	Peer	Peer	Interview
Communication skills	Interview	Interview	Peer
Critical thinking skills analysis, synthesis, and evaluation	Test	Test	Course
Ability to learn from experience	Peer	Peer	Peer
Cultural sophistication and cross-cultural understanding	Peer	Peer	Peer
Empathy, understanding, and respect for others	Peer	Peer	Peer
Loyalty and intimacy that go beyond understanding and tolerance	Peer	Peer	Peer
Sense of self in a social and historical sense	Interview	Interview	Interview
Understanding of relevant, critical, and political issues	Test	Interview	Course
Technical skills related to personnel and organizational management	Test	Course	Course
Creative ability to incorporate new research and information from various fields	Interview	Peer	Course
Foundational knowledge base	Test	Course	Course
Specific knowledge base	Test	Course	Course

*Variable modes are reported.

TABLE 6. DISCRIMINANT ANALYSIS OF MEASUREMENT OF COMPETENCY

Discriminating Variables	Superintendents (N = 9) X	SD	State Departments (N = 17) X	SD	Preparation Programs (N = 30) X	SD	Unstandardized Discriminant Function Coefficient	Standardized Discriminant Function Coefficient
Clarity of values	3.33	.71	3.18	.73	3.47	.51	1.00	.613
Understanding of Relevant issues	1.56	1.01	2.59	1.28	2.50	.97	.559	.60
Technical skills	2.11	1.27	2.00	1.00	2.53	.90	.489	.486
Specific knowledge base	1.67	.87	1.65	.49	2.00	.87	.551	.427
Loyalty and intimacy	3.00	.87	3.18	.53	3.27	.45	.686	.381
Creative ability	2.89	1.45	2.88	.93	2.67	1.06	-.378	-.413
Communication skills	3.89	.33	3.35	.93	3.17	.87	-.780	-.651
Group Centroids								
Superintendents							-1.280	
State Departments							- .383	
Preparation programs							.601	

Classification Analysis	Predicted Group Membership		
Superintendents	54.4	36.4	9.1
State Departments	31.8	36.4	31.8
Preparation programs	4.7	27.9	67.4

Discriminant Analysis Function	Eigenvalue	Correlation	Wilks Lambda	X^2	D.F.	Significance
	.530	.589	5.79	27.283	14	.017

Part II: Competency

Components

One definition of competency is "a certain knowledge base with the skills to perform at an effective and requisite level." Applying this definition to the concept of school administrator competency, to what extent do you consider each of the following aspects an important part of competency? Circle the number corresponding to your belief: 1- very important; 2 - rather important; 3 - important; 4 - less important; 5 - not important at all. then rank the aspects in order of relative importance by placing a number in the blank, with a 1 indicating the most important aspect of competency, a 2 the next most important, etc.

		Rank
1. Clarity of values and integrity	1 2 3 4 5	_____
2. Communication skills	1 2 3 4 5	_____
3. Critical thinking skills analysis, synthesis, and evaluation	1 2 3 4 5	_____
4. Ability to learn from experience	1 2 3 4 5	_____
5. Cultural sophistication and cross-cultural understanding	1 2 3 4 5	_____
6. Empathy, understanding, and respect for others	1 2 3 4 5	_____
7. Loyalty and intimacy that go beyond understanding and tolerance	1 2 3 4 5	_____
8. Sense of self in a social and historical sense	1 2 3 4 5	_____
9. Understanding of relevant critical and political issues	1 2 3 4 5	_____
10. Technical skills related to personnel and organizational management	1 2 3 4 5	_____
11. Creative ability to incorporate new research and information from various fields	1 2 3 4 5	_____
12. Foundational knowledge base	1 2 3 4 5	_____
13. Specific knowledge base	1 2 3 4 5	_____
14. Other (please specify): _____	1 2 3 4 5	_____
15. Other (please specify): _____	1 2 3 4 5	_____

Competency Aquisition/Development

For each aspect of competency below, rank the experiences you feel are the best means through which to gain/acquire/develop competency: 1- best method; 2 - second best method; 3 - third best method, etc.:

	Work Experience	Course Work	Clinical Preparation	Other (Specify)
1. Clarity of values and integrity . .	_____	_____	_____	_____
2. Communication skills	_____	_____	_____	_____
3. Critical thinking skills analysis, synthesis, and evaluation	_____	_____	_____	_____
4. Ability to learn from experience .	_____	_____	_____	_____
5. Cultural sophistication and cross-cultural understanding . .	_____	_____	_____	_____
6. Empathy, understanding, and respect for others	_____	_____	_____	_____
7. Loyalty and intimacy that go beyond understanding and tolerance	_____	_____	_____	_____
8. Sense of self in a social and historical sense	_____	_____	_____	_____
9. Understanding of relevant critical and political issues	_____	_____	_____	_____
10. Technical skills related to personnel and organizational management	_____	_____	_____	_____
11. Creative ability to incorporate new research and information from various fields	_____	_____	_____	_____
12. Foundational knowledge base	_____	_____	_____	_____
13. Specific knowledge base	_____	_____	_____	_____
14. Other (please specify):_____	_____	_____	_____	_____
15. Other (please specify):_____	_____	_____	_____	_____

Part II: Competency (continued)

Competency Measurement/Demonstration

For each statement below, indicate in rank order what you believe to be the most effective methods for measuring the individual aspects of competency, placing a 1 in the most effective method, a 2 in the second, a 3 in the third, etc.:

	Standardized Testing	Course Grades	Peer Review	Interview Process
1. Clarity of values and integrity .	_____	_____	_____	_____
2. Communication skills	_____	_____	_____	_____
3. Critical thinking skills, analysis, synthesis, evaluation	_____	_____	_____	_____
4. Ability to learn from experience	_____	_____	_____	_____
5. Cultural sophistication and cross-cultural understanding .	_____	_____	_____	_____
6. Empathy, understanding, and respect for others	_____	_____	_____	_____
7. Loyalty and intimacy that go beyond understanding and tolerance	_____	_____	_____	_____
8. Sense of self in a social and historical sense	_____	_____	_____	_____
9. Understanding of relevant critical and political issues	_____	_____	_____	_____
10. Technical skills related to personnel and organizational management	_____	_____	_____	_____
11. Creative ability to incorporate new research and information from various fields	_____	_____	_____	_____
12. Foundational knowledge base . . .	_____	_____	_____	_____
13. Specific knowledge base	_____	_____	_____	_____
14. Other (please specify):_____	_____	_____	_____	_____
15. Other (please specify):_____	_____	_____	_____	_____

BIBLIOGRAPHY

Argyris, C. (1962). Interpersonal competence and organizational effectiveness. Homewood, IL: Dorsey.

Breen, P., Donlon, T. F. & Whitaker, U. (1977). Teaching and assessing interpersonal competence - A CAEL handbook. Princeton, NJ: Cooperative Assessment of Experiential Learning.

Culbertson, J., et al. (December 1969). Preparing educational leaders for the seventies. Columbus, Ohio: University Council for Educational Admission.

Glass, T. E., Belafani, S. B. (1988). Here are the skills you need to succeed as a superintendent. The Executive Educator, 10(7), 19-20.

Gousha, R. P., Lopresti, P. L. & Jones A. H. (1988), August). Continuing change: Results from the third annual survey of certification and employment standards for educational administrators. Paper presented at the meeting of the National Council for Professors of Educational Administration, Kalamazoo, MI.

Greenfield, W. D. (1985). The moral socialization of school administrators: Informal role learning outcomes. Educational Administration Quarterly, 21(4), 99-119.

Hoyle, J., English, F. W., & Steffy, B. E. (1985). Skills for successful school leaders. Arlington, VA: American Association of School Administrators.

Jones, A. (Ed.) (1987). School leadership: A report of the proceedings of the state of California Commission on Teacher Credentialing. Sacramento, CA.

Loevinger, J. (1976). Ego development. San Francisco: Jossey-Bass.

March, J. (1974). Analytical skills and the university training of educational administrators. The Journal of Educational Administration, 1(8), 30-54.

Miller, V. (1962). Common and specialized learnings for educational administrators. Columbus, OH: University Council for Educational Administration.

National Governors' Association, Center for Policy Research and Analysis. (1986). Time for results, Governors 1991 report on education. Washington, D.C.: Author.

National Commission on Excellence in Educational Administration. (1987). Leaders for America's Schools. Columbus, Ohio: University Council for Educational Administration.

National Commission on Excellence in Educational Administration (1987). Leaders for America's schools. Tempe, A|: The University Council for Educational Administration.

National Policy Board for Educational Administration: Improving the preparation of School Administrators: An agenda for reform May 1989, University of Virginia, Charlottesville.

Nunnery, M. (1982). Reform of K-12 education administrator preparation, some basic questions. Journal of Research and Development in Education, 15(2), 44-51.

Peper, J. B. (1987, January). Clinical education for school superintendents and principals. Paper presented at the meeting of the Danforth foundation program for professors of school administration, South Padre Island, TX.

Peterson, K., & Finn, C. (Spring 1985). Principals, superintendents and the administrator's art. The Public Interest, 79, 42-62.

Pitner, N. J. (February 1982). Training of the school administrator: State of the Art. Eugene, Oregon: Center for Educational Policy and Management, University of Oregon. (ERIC Document Reproduction Service No. ED 214 253)

Pylyshyn, Z. W. (1973). The role of competence theories in cognitive psychology. Journal of Psycho-linguistic Research, 2, 21-50.

Rodman, B. (1987), March 19). Sweeping overhaul of licensing, training of administrators urged. Education Week, p. 1.

Schon, D. A. (1987). Educating the reflective practitioner. San Francisco: Jossey-Bass.

Short, E. C. (1985). The Concept of Competence: It's use and misuse in Education. Journal of Teacher Education pp. 1-6.